

Claim Listing:

What is claimed is:

1. (Previously Amended) An implantable medical graft, comprising:
 - a. a generally tubular body member comprising a film selected from the group consisting of metallic and pseudometallic materials and having a luminal wall surface, an abluminal wall surface and a thickness intermediate the luminal wall surface and the abluminal wall surface; and
 - b. at least a portion of the body member having a plurality of ~~continuous~~ circumferential corrugations forming an undulations, with undulating pattern of peaks and valleys, formed in each of the luminal wall and abluminal wall surfaces of the body member and along at least a portion of the longitudinal axis of the body member to impart longitudinal flexibility to the implantable medical graft.
2. (Currently Amended) The implantable medical graft according to Claim 1, further comprising a plurality of microperforations passing through the thickness of the body member and communicating between the luminal surface and the abluminal surface, wherein the microperforations are present only in the valleys of the undulating pattern.
3. (Original) The implantable medical graft according to Claim 1, wherein the film is made of a metallic material selected from the group consisting of titanium, vanadium, aluminum, nickel, tantalum, zirconium, chromium, silver, gold, silicon, magnesium, niobium, scandium, platinum, cobalt, palladium, manganese, molybdenum and alloys thereof.
4. (Previously Amended) The implantable medical graft according to Claim 2, further comprising at least one of a plurality of non-undulated circumferential regions of the body member.
5. (Original) The implantable medical graft according to Claim 4, further comprising at least one of a plurality of suturing openings passing through the wall thickness of the at least one of a plurality of non-undulated regions of the body member.

6. (Original) The implantable medical graft according to Claim 4, wherein the wall thickness of the undulating regions is less than the wall thickness of the non-undulating regions.

7. (Original) The implantable medical graft according to Claim 6, wherein the thickness of the undulating regions is between about 3 – 7 μm and the wall thickness of the non-undulating regions is between about 10 – 20 μm .

8. (Original) The implantable medical graft according to Claim 7, wherein the at least a portion of a non-undulating region further comprises at least one of a plurality of suturing openings passing through the wall thickness.

9. (Original) The implantable medical graft according to Claim 8, wherein the at least one of a plurality of suturing openings further comprises a generally cruciform-shaped slot pattern.

10. (Currently Amended) The implantable medical graft according to Claim 8, wherein the at least one of a plurality of ~~suturing openings~~ microperforations further comprises a generally Y-shaped slot pattern.

11. (Original) The implantable medical graft according to Claim 4, further comprising at least one of a plurality of radially projecting barb members.

12. (Original) The implantable medical graft according to Claim 4, further comprising at least one of a plurality of suture members integrally extending along a longitudinal axis of the body member.

13. (Currently Amended) A method of making an implantable medical graft comprising the steps of:

- a. providing a generally cylindrical substrate having a plurality of circumferentially extending continuous undulations with peaks and valleys, patterned along at least a portion of a longitudinal axis of the generally cylindrical substrate;
- b. vacuum depositing a graft-forming material onto the generally cylindrical substrate; and
- c. releasing the deposited graft-forming material from the substrate to form a implantable medical graft including circumferential corrugations forming an undulating pattern of peaks and valleys in each of the luminal wall and abluminal wall surfaces of the body member and along at least a portion of the longitudinal axis of the body member.

14. (Original) The method according to Claim 13, wherein the graft-forming material is selected from the group consisting of biocompatible metals and pseudometals.

15. (Original) The method according to Claim 13, further comprising the step of forming a plurality of microperforations passing through the thickness of the deposited graft-forming material.

16. (Original) The method according to Claim 13, further comprising the step of forming at least one of a plurality of suturing openings through the wall thickness of at least one non-undulating region of the deposited graft-forming material.

17. (Currently Amended) The implantable medical graft according to Claim 1 wherein the ~~plurality of continuous circumferential undulations~~ circumferential corrugations forming an undulating pattern of peaks and valleys form annular ridges in the body member to permit the implantable medical graft to bend in excess of 180 degrees about the longitudinal axis of the implantable medical graft.

18. (Currently Amended) An implantable medical graft, comprising:

- a. a generally tubular body member comprising a film selected from the group consisting of metallic and pseudometallic materials and having a luminal wall surface, an abluminal wall surface and a thickness intermediate the luminal wall surface and the abluminal wall surface; and
- b. at least a portion of the body member having a plurality of annular ridges forming peaks and valleys in each of the luminal wall and abluminal wall surfaces of the body member, wherein the proximal and distal ends of the tubular body member include longitudinal regions with annular ridges and other longitudinal regions including no annular ridges to form a staggered array of annular ridged and non-annular ridged regions at the proximal and distal ends of the body member.

19. (Previously Presented) The implantable medical graft according to Claim 18, further comprising a plurality of microperforations passing through the thickness of the body member and communicating between the luminal surface and the abluminal surface.

20. (Previously Presented) The implantable medical graft according to Claim 18, wherein the film is made of a metallic material selected from the group consisting of titanium, vanadium, aluminum, nickel, tantalum, zirconium, chromium, silver, gold, silicon, magnesium, niobium, scandium, platinum, cobalt, palladium, manganese, molybdenum and alloys thereof.